

Final Abstract

Final Report Approved on November 5, 2024

M.L. 2022 Project Abstract

For the Period Ending June 30, 2024

Project Title: Leaded Gasoline Contamination Analysis

Project Manager: Tariq Al-Rifai

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Funding Source:

Fiscal Year:

Legal Citation: M.L. 2022, Chp. 94, Sec. 2, Subd. 10b

Appropriation Amount: \$200,000

Amount Spent: \$196,112

Amount Remaining: \$3,888

Sound bite of Project Outcomes and Results

The basis of this report was to determine if the actions and remedies applied by the MPCA to four contaminated sites in Alexandria, Blaine, Foley and Paynesville were adequate to address the issues and give further recommendations if needed.

Overall Project Outcome and Results

Alexandria:

- Contamination (benzene and 1,2-DCA) was detected in water supply.
- The source of contamination has never been identified. Many potential sources of contamination exist within the DWSMA.
- There are ongoing MPCA investigations into other contaminants, but none related to leaded gasoline contamination.
- EDB sampling with low-level methods is recommended.

Blaine:

- 1,2-DCA contamination was first detected in supply wells in the Southwest DWMA in 1993.

- Contaminated supply wells were shut down in 1995 but restarted in 2006 after an air stripper was installed.
- Incoming 1,2-DCA in the supply wells has greatly decreased but is still above the MN HRL prior to treatment.
- The MPCA originally did not identify a source of the contamination, but later found the likely source after additional investigation.
- There are no ongoing MPCA investigations or additional remedial actions planned.
- EDB sampling with low-level methods is recommended, along with continued operation of the air stripper.

Foley:

- Petroleum-related contamination was detected in Foley's water supply and the likely source has been identified.
- Supply wells with contamination have been taken out of service.
- There are no ongoing detections, investigations or monitoring, outside of routine MDH sampling of the water supply.
- EDB sampling with low-level methods is recommended.

Paynesville:

- Petroleum-related contamination was detected in water supply between 1985 and 2003.
- Contaminated supply wells have been taken out of service.
- Some active source removal efforts have been unsuccessful. Regulatory efforts are focused on source control and monitoring natural attenuation.
- Recent detections of contaminants are below applicable HRLs.
- An air stripper is installed at the water treatment plant.
- Recommendations include continued monitoring, additional sampling for EDB using low-level methods, and clearly documenting the actions related to sentinel monitoring well sampling.

Project Results Use and Dissemination

The report has been sent to the House Environment and Natural Resources Finance and Policy, the Senate Environment, Climate, and Legacy Committee and the Legislative Reference Library.



Environment and Natural Resources Trust Fund

M.L. 2022 Approved Final Report

General Information

Date: December 11, 2024

ID Number: 2022-296

Staff Lead: Michael Varien

Project Title: Leaded Gasoline Contamination Analysis

Project Budget: \$200,000

Project Manager Information

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Project Reporting

Final Report Approved: November 5, 2024

Reporting Status: Project Completed

Date of Last Action: November 5, 2024

Project Completion: April 30, 2024

Legal Information

Legal Citation: M.L. 2022, Chp. 94, Sec. 2, Subd. 10b

Appropriation Language: \$200,000 the second year is from the trust fund to the commissioner of administration for a grant to the city of Paynesville to procure an analysis of the extent of leaded gasoline contamination in or near the cities of Paynesville, Foley, Alexandria, and Blaine, and of the threat posed by the contamination to each city's drinking water supply. The vendor selected to perform the analysis must use the same methodology to conduct the analysis for each city and must produce findings that are comparable between cities. The cities must work cooperatively to select a vendor. By January 15, 2024, the city administrator of the city of Paynesville must report the results of the analysis to

the chairs and ranking minority members of the house of representatives and senate committees and divisions with jurisdiction over environment and natural resources.

Appropriation End Date: June 30, 2025

Narrative

Project Summary: The project involves completing a third party technical review of four contamination sites in the Cities of Paynesville, Alexandria, Blaine and Foley.

Describe the opportunity or problem your proposal seeks to address. Include any relevant background information.

The City of Paynesville, along with the Cities of Alexandria, Blaine, and Foley have contamination sites associated with historic leaded gasoline releases that previously impacted the water supply and remain a potential risk to the water supply. All of the sites had contamination detected in their water supply from different leak sites. The MPCA investigated each site and completed various levels of clean-up. None of the sites were excavated to completely remove the contamination source. Each of the Cities installed new wells to replace the water supply wells that were contaminated and/or add treatment systems to their water treatment facilities to remove the contaminants from the water. While all of the Cities are dealing with the contamination by either using new wells and/or treatment, the source of the contamination has never been removed. This project would consist of completing a third party review of the contamination sites in each of the four Cities to determine whether further remediation is necessary.

What is your proposed solution to the problem or opportunity discussed above? Introduce us to the work you are seeking funding to do. You will be asked to expand on this proposed solution in Activities & Milestones.

The City of Paynesville is using their City Engineer (Bolton & Menk, Inc.) and Barr Engineering to complete the third party review of each site. These firms have assisted the City in the past in dealing with the Midtown Site in Paynesville and Barr is familiar with one of the other sites as well. In addition, these firms assisted the City in requesting the funds and establishing a budget for the review. This familiarity will allow the review to be completed as efficiently as possible. The work would include integrating all available information, data, and historical reporting on the above listed sites, analyzing the extent of leaded gasoline contamination, and evaluating the threat posed to each City's drinking water supply. The consultant will use the same methodology for analysis for each city to the extent possible based on site-specific differences and produce findings that are comparable between cities. The technical review will assist in providing guidance for each site moving forward and help define whether further remediation is needed. The review will also help assess the risk to the drinking water supplies.

What are the specific project outcomes as they relate to the public purpose of protection, conservation, preservation, and enhancement of the state's natural resources?

The results of the analysis will be utilized to provide guidance for each of the contamination sites moving forward and will also identify the risk level associated with the drinking water supplies. For example, it may be determined that the extent of contamination on a site is sufficiently known and previous actions are protective of human health; or additional investigation may be recommended to provide a benefit for understanding of the contamination at a site; or additional actions should be evaluated; etc. Each particular site will have an outcome regarding how best to move forward.

Project Location

What is the best scale for describing where your work will take place?

City(s): Paynesville

What is the best scale to describe the area impacted by your work?

City(s): Paynesville

When will the work impact occur?

In the Future

Activities and Milestones

Activity 1: Complete an Evaluation of each of the four contamination sites

Activity Budget: \$100,000

Activity Description:

The consultant will complete the following:

1. Review available reports in the MPCA’s and each respective City’s files, if available, to better understand and summarize the conditions and history for each site. Note that this may include file request and review for nearby sites for evaluation of potential sources and relevant hydrogeologic information. MPCA’s files are likely extensive as the sites have been active since the 1980s. MPCA files for each individual site will be requested through the standard public file review process. The timeline for receiving MPCA files varies.
2. Complete a site walk for each site and meet with representatives of each City to better understand the site setting, history, current concerns, and any information relevant to the evaluations for each site.
3. Extract and organize available data from groundwater and soil investigation, sampling of municipal supply wells, and other relevant sampling. The data will be entered and organized into an environmental database to facilitate visualization, review and analysis.

Activity Milestones:

Description	Approximate Completion Date
Complete a Site Walk for each site	May 31, 2023
Complete File Review	July 31, 2023
Create Environmental Database	September 30, 2023

Activity 2: Prepare a Summary Report

Activity Budget: \$100,000

Activity Description:

The consultant will prepare a final summary report (draft and revised versions if needed) The summary report will include: discussion of site history (investigation, previous remedial actions, water supply treatment and usage, etc); analysis of the extent of leaded gas contamination; conceptual level discussion of potential remedial options if appropriate; and findings comparable across cities. In addition, the consultant will assist the Cities with providing a report of the results of the analysis to the members of the house of representatives and senate committees/divisions with jurisdiction over environmental and natural resources. Per the appropriation language, this report is due by January 15, 2024. The final report will be delivered to legislature by this date. This report is the legislative report, which is different than the final report for LCCMR reporting requirements.

Activity Milestones:

Description	Approximate Completion Date
Complete Draft Report	November 30, 2023
MPCA Review and Comment	December 31, 2023
Complete Final Legislative Report	January 31, 2024

Dissemination

Describe your plans for dissemination, presentation, documentation, or sharing of data, results, samples, physical collections, and other products and how they will follow ENRTF Acknowledgement Requirements and Guidelines.

The results of the study will be reports to the members of the house of representatives and senate committees/divisions with jurisdiction over environmental and natural resources. This reporting will include at a minimum, the following attribution language: "Funding for this project was provided by the Minnesota Environment and Natural Resources Trust Fund as recommended by the Legislative-Citizen Commission on Minnesota Resources (LCCMR)."

Long-Term Implementation and Funding

Describe how the results will be implemented and how any ongoing effort will be funded. If not already addressed as part of the project, how will findings, results, and products developed be implemented after project completion? If additional work is needed, how will this work be funded?

Based on the results of the third party study, discussion will need to occur with the MPCA and stakeholders on developing a plan to move forward with the recommended actions. Funding will need to be secured from the MPCA or a special appropriation to implement the recommended actions.

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount	\$ Amount Spent	\$ Amount Remaining
Personnel										
City Administrator		Project Manager			5%	0.1		\$10,000	-	-
							Sub Total	\$10,000	\$10,000	-
Contracts and Services										
Bolton & Menk, Inc.	Service Contract	Conducting Third Party Review				0		\$30,000	\$30,000	-
Barr Engineering	Service Contract	Conducting on-site testing and review of past tests/reports				0		\$160,000	\$156,112	\$3,888
							Sub Total	\$190,000	\$186,112	\$3,888
Equipment, Tools, and Supplies										
							Sub Total	-	-	-
Capital Expenditures										
							Sub Total	-	-	-
Acquisitions and Stewardship										
							Sub Total	-	-	-
Travel In Minnesota										
							Sub Total	-	-	-
Travel Outside Minnesota										
							Sub Total	-	-	-

Printing and Publication										
							Sub Total	-	-	-
Other Expenses										
							Sub Total	-	-	-
							Grand Total	\$200,000	\$196,112	\$3,888

Classified Staff or Generally Ineligible Expenses

Category/Name	Subcategory or Type	Description	Justification Ineligible Expense or Classified Staff Request
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Non ENRTF Funds

Category	Specific Source	Use	Status	\$ Amount	\$ Amount Spent	\$ Amount Remaining
State						
			State Sub Total	-	-	-
Non-State						
			Non State Sub Total	-	-	-
			Funds Total	-	-	-

Attachments

Required Attachments

Visual Component

File: [69f061d0-aab.pdf](#)

Alternate Text for Visual Component

Attached is a graphic showing the Paynesville Midtown Contamination Site and the locations of all of the monitoring wells....

Board Resolution or Letter

Title	File
City of Paynesville Letter	1bfb17f3-5ad.pdf

Supplemental Attachments

Capital Project Questionnaire, Budget Supplements, Support Letter, Photos, Media, Other

Title	File
Signed Background Check Form	550e53fe-ec4.pdf
Leaded Gasoline Contamination Analysis for Foley, Blaine, Paynesville, and Alexandria, Minnesota	7cf09c56-71b.pdf

Difference between Proposal and Work Plan

Describe changes from Proposal to Work Plan Stage

There are no changes between the proposal and work plan.

Additional Acknowledgements and Conditions:

The following are acknowledgements and conditions beyond those already included in the above workplan:

Do you understand and acknowledge the ENRTF repayment requirements if the use of capital equipment changes?

N/A

Do you understand that travel expenses are only approved if they follow the "Commissioner's Plan" promulgated by the Commissioner of Management of Budget or, for University of Minnesota projects, the University of Minnesota plan?

N/A

Does your project have potential for royalties, copyrights, patents, sale of products and assets, or revenue generation?

No

Do you understand and acknowledge IP and revenue-return and sharing requirements in 116P.10?

N/A

Do you wish to request reinvestment of any revenues into your project instead of returning revenue to the ENRTF?

N/A

Does your project include original, hypothesis-driven research?

No

Does the organization have a fiscal agent for this project?

No

Do you understand that a named service contract does not constitute a funder-designated subrecipient or approval of a sole-source contract? In other words, a service contract entity is only approved if it has been selected according to the contracting rules identified in state law and policy for organizations that receive ENRTF funds through direct appropriations, or in the DNR's reimbursement manual for non-state organizations. These rules may include competitive bidding and prevailing wage requirements

No

Work Plan Amendments

Amendment ID	Request Type	Changes made on the following pages	Explanation & justification for Amendment Request (word limit 75)	Date Submitted	Approved	Date of LCCMR Action
1	Amendment Request	<ul style="list-style-type: none"> • Activities and Milestones 	Needed to update milestone dates for Activity One and Activity Two due to delay in getting vendor approved and working on getting final agreement to sign. Despite this delay, we anticipate completing the work within the time limit of the project.	January 30, 2023	Yes	January 30, 2023
2	Amendment Request	<ul style="list-style-type: none"> • Activities and Milestones • Budget - Personnel • Budget - Professional / Technical Contracts 	Needed to separate the budget items to reflect all parties involved. For this project, there will be three parties, the City as project manager, the City's engineering firm for review and the lead engineering firm for testing and reporting.	February 22, 2023	Yes	March 17, 2023
3	Completion Date	Previous Completion Date: 07/31/2024 New Completion Date: 04/30/2024	Project completed before original completion date.	May 17, 2024	Yes	May 17, 2024

Status Update Reporting

Final Status Update June 14, 2024

Date Submitted: November 4, 2024

Date Approved: November 4, 2024

Overall Update

The consultant submitted a final report to me, which I then sent to members of the House Environment and Natural Resources Finance Policy and we as the Senate Environment, Climate and Legacy Committee on 6/21/2024.

Activity 1

Done.

(This activity marked as complete as of this status update)

Activity 2

Done.

(This activity marked as complete as of this status update)

Dissemination

Report has been finalized and released. The final report was sent to members of the House Environment and Natural Resources Finance Policy and we as the Senate Environment, Climate and Legacy Committee on 6/21/2024. In addition, the consultant setup in-person presentations to each of the 4 cities. The presentation in Paynesville was on 6/10.2024.

Additional Status Update Reporting

Additional Status Update May 17, 2024

Date Submitted: September 6, 2024

Date Approved: October 7, 2024

Overall Update

The consultant has provided a draft report for feedback from the four cities and also presented a draft report to the MPCA for comment.

Activity 1

Per the consultant, the final report will be finalized in June 2024.

Activity 2

All work is scheduled to be completed by the end of the month.

Dissemination

The final report will be shared once comments and feedback are incorporated into it.

Status Update Reporting

Status Update March 1, 2024

Date Submitted: March 13, 2024

Date Approved: April 30, 2024

Overall Update

There was some initial hesitation from the cities, however, after discussions their concerns were alleviated. By February 15, 2023, all four cities had signed were in agreement. They have been responsive to requests for information and collaborative; meeting in-person and coordinating site walks as needed. Nothing has been submitted to the legislature. Note: the bill was passed in June 2022, and but work did not commence until mid-February 2023 when the grant agreement was finalized. Additional delays resulted from the following:

- Additional MPCA file review (e.g., Alexandria has no identified source; >10 MPCA sites with hundreds of individual documents ultimately reviewed)
- Re-request of MPCA files have continued to yield additional historical files. We were anticipating only new/recent files would be added.
- Schedule coordination/delays for site walks. Originally, site walks were planned to occur prior to/during file review. However, it was determined that site-walks following file reviews were more appropriate given the outstanding questions for several cities.
- MPCA meetings/interviews. We decided as a team that we needed to meet with MCPA about several sites given the lack of some information. MPCA meetings were not anticipated at the start of the project.

Activity 1

Site walks were completed at each of the four cities, including meeting with city officials. In total, more than 85 individual information/file requests were made to the MPCA regarding multiple contamination sites in each city, resulting in thousands of individual documents for potential review. Following an extensive file review, the team also determined that meetings with the MCPA were merited for Foley, Alexandria, and Paynesville. Three separate meetings were held with MCPA staff to discuss outstanding questions and request more specific information. The data that is being reviewed and compiled is from both MDH and MPCA. Much of the data was not available in electronic format (i.e., Excel), but rather in PDF. Therefore much of the data is transcribed. The database is being used in evaluations included in the report, but the database itself is not a planned deliverable. All relevant presentations of the data will be included in the report.

Activity 2

Nothing has been submitted to the legislature. Schedule delays are the same as identified below. The report will be submitted to the legislature after it is finalized. Currently, submittal of the report is planned by the end of April 2024, pending reviews by the cities and potential review by MPCA.

Dissemination

There is no update here.

Status Update Reporting

Status Update September 1, 2023

Date Submitted: September 1, 2023

Date Approved: October 24, 2023

Overall Update

Barr Engineering has been working on Activity 1 and all work so far is on schedule.

Activity 1

Barr Engineering has received and reviewed files from the MPCA for all of the sites. They have also requested additional files from the State. They are planning on scheduling site walks in each of the four communities within the coming month. At this time, Activity 1 work is on schedule.

Activity 2

Activity 2 will not begin until Activity 1 is complete.

Dissemination

There has been no dissemination.

Status Update Reporting

Status Update March 1, 2023

Date Submitted: February 22, 2023

Date Approved: March 17, 2023

Overall Update

Working on vendor selection and grant agreement.

Activity 1

No works has been done.

Activity 2

No works has been done.

Dissemination

No works has been done.